

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 11253 P-WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2004/003804	International filing date (day/month/year) 08/04/2004	(Earliest) Priority Date (day/month/year) 09/04/2003
Applicant GENERAL ELECTRIC COMPANY		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. Certain claims were found unsearchable (See Box II).

3. Unity of invention is lacking (see Box III).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b. none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/003804

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H02J3/38 F03D9/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H02J F03D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category ^a	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	<p>WO 03/030329 A (WOBBEN ALOY)</p> <p>10 April 2003 (2003-04-10)</p> <p>abstract</p> <p>page 14, paragraph 5 – page 18, paragraph 1</p> <p>page 20, paragraph 4 – page 21, paragraph 1</p> <p>claims 7,8,10,11,15</p> <p>-----</p> <p style="text-align: center;">-/-</p>	1-21

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

^b Special categories of cited documents :

- A' document defining the general state of the art which is not considered to be of particular relevance
- E' earlier document but published on or after the international filing date
- L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- O' document referring to an oral disclosure, use, exhibition or other means
- P' document published prior to the international filing date but later than the priority date claimed

- T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- &* document member of the same patent family

Date of the actual completion of the international search

13 July 2004

Date of mailing of the international search report

21/07/2004

Name and mailing address of the ISA

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Lorenzo Feijoo, S

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/003804

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	J SVENSSON AND P KARLSSON: "Wind Farm Control Software Structure" THIRD INTERNATIONAL WORKSHOP ON TRANSMISSION NETWORKS FOR OFFSHORE WIND FARMS, 'Online! April 2002 (2002-04), XP002254250 Stockholm Retrieved from the Internet: URL: http://www.iea.lth.se/ielper/DistributedPowerSystems/OffshoreWindFarms2002-paper.pdf 'retrieved on 2003-09-01! the whole document -----	1, 3-7, 12-14, 16, 20, 21
X	A DE LEMOS PEREIRA: "Modular Supervisory controller for hybrid systems" PHD THESIS, 'Online! June 2000 (2000-06), page 1, XP002254251 Roskilde Retrieved from the Internet: URL: http://www.risoe.dk/rispubl/VEA/veapdf/ris-r-1202.pdf 'retrieved on 2003-09-11! page 17 - page 21 -----	1-6, 13
X	DE 196 20 906 A (SIEMENS AG) 8 January 1998 (1998-01-08) abstract; figure 3 column 7; figure 6 -----	7-11, 14, 15
X	P CHRISTIANSEN, K K JORGENSEN, A G SORENSEN: "Grid Connection and Remote Control for the Horns Rev 150 MW Offshore Wind Farm in Denmark" FIRST/SECOND INTERNATIONAL WORKSHOP ON TRANSMISSION NETWORKS FOR OFFSHORE WIND FARMS, 'Online! March 2001 (2001-03), pages 1-11, XP002254252 Stockholm Retrieved from the Internet: URL: http://www.owen.eru.rl.ac.uk/workshop_4/pdfs/owen_Christiansen.pdf 'retrieved on 2003-09-11! pages 3-4 pages 10-11 -----	1, 4-7, 13, 14
		-/-

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/003804

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>TAPIA A ET AL: "Modeling and dynamic regulation of a wind farm"</p> <p>7TH IEEE INTERNATIONAL POWER ELECTRONICS CONGRESS. TECHNICAL PROCEEDINGS. CIEP 2000 (CAT. NO.00TH8529), PROCEEDINGS OF CIEP 2000. 7TH IEEE INTERNATIONAL POWER ELECTRONICS CONGRESS, ACAPULCO, MEXICO, 15-19 OCT. 2000, October 2000 (2000-10), pages 293-297, XP010527924</p> <p>2000, Piscataway, NJ, USA, IEEE, USA</p> <p>ISBN: 0-7803-6489-9</p> <p>the whole document</p> <p>-----</p> <p>DE 100 22 974 A (WOBBEN ALOYS)</p> <p>22 November 2001 (2001-11-22)</p> <p>abstract</p> <p>paragraph '0016! - paragraph '0019!;</p> <p>claims 1,2,4-6; figures 3,4</p> <p>-----</p> <p>KONLOGIANNIS C C ET AL: "An efficient power management and control in wind parks by means of a radio telemetry control system"</p> <p>ELECTROMOTION'01. 4TH INTERNATIONAL SYMPOSIUM ON ADVANCED ELECTROMECHANICAL MOTION SYSTEMS. PROCEEDINGS, PROCEEDINGS OF 4TH INTERNATIONAL SYMPOSIUM ON ADVANCED ELECTROMECHANICAL MOTION SYSTEMS - ELECTROMOTION 2001, BOLOGNA, ITALY, 19-20 JUNE 2001, October 2001 (2001-10), pages 461-465 vol.2, XP001154444</p> <p>2001, Bologna, Italy, Univ. Bologna, Italy</p> <p>ISBN: 88-900615-0-2</p> <p>the whole document</p> <p>-----</p> <p>US 2002/029097 A1 (LEE MARK I ET AL)</p> <p>7 March 2002 (2002-03-07)</p> <p>abstract; figures 1A,1B</p> <p>paragraph '0006! - paragraph '0010!</p> <p>paragraph '0069!</p> <p>paragraph '0180!</p> <p>-----</p>	7-9,11, 14
A		1,2,4,6, 13
A		1,6,7
A		

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/003804

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 03030329	A	10-04-2003		CA 2460724 A1 WO 03030329 A1 EP 1433238 A1		10-04-2003 10-04-2003 30-06-2004
DE 19620906	A	08-01-1998		DE 19620906 A1 WO 9745908 A1 EP 0939995 A1		08-01-1998 04-12-1997 08-09-1999
DE 10022974	A	22-11-2001		DE 10022974 A1 AT 248990 T AU 5476101 A CA 2409514 A1 CA 2455144 A1 CN 1437684 T DE 20121650 U1 DE 50100583 D1 DK 1282774 T3 WO 0186143 A1 EP 1282774 A1 EP 1371846 A2 ES 2204859 T3 JP 2003535561 T MA 25669 A1 NO 20025360 A PT 1282774 T US 2003155773 A1 ZA 200209257 A		22-11-2001 15-09-2003 20-11-2001 08-11-2002 08-11-2002 20-08-2003 06-03-2003 09-10-2003 29-12-2003 15-11-2001 12-02-2003 17-12-2003 01-05-2004 25-11-2003 31-12-2002 10-01-2003 30-01-2004 21-08-2003 20-08-2003
US 2002029097	A1	07-03-2002	WO	0177525 A1		18-10-2001